



AMENDMENT

In the Specification:

Please replace Table 5, beginning at page 38, with the following amended Table 5:

Table 5: Alignment of various species OX2R homologs 1 and 2:

OX2RH1_MU	MFCFWRTSALAVLLIWGVFVAGSS-----	CTDKNQTTQN	(SEQ ID NO: 25)
OX2RH1_RT	MLCFWRTSHVAVLLIWGVFAAESS-----	CPDKNQTMQN	(SEQ ID NO: 26)
OX2RH2_MU	-----	-----	
OX2RH1_HU	MLCPWRTANLGLLLILITIFLVAEAEAGAQPNNSLMLQTSKENHALASSSLCMDEKQITQN	(SEQ ID NO: 27)	
OX2RH2_HU	-----	MGKKQMTQN	(SEQ ID NO: 28)
OX2RH1_MU	NSSSPLTQVNTTVSVQIGTKALLCCFSIPLTKAVLITWI1KLRGLPSCITAYKVDT-KTN	(SEQ ID NO: 29)	
OX2RH1_RT	NSST-MTEVNNTTVFVQMGKALLCCPSISLTKVILITWTITLRQQPSCIISYKADTRETH	(SEQ ID NO: 30)	
OX2RH2_MU	-----	RGQPSCIMAYKVETKETN	(SEQ ID NO: 31)
OX2RH1_HU	YSKV-LAEVNTSWPVKMATNAVLCCPPIALRNLIITWEIILRGQPSCTKAYKKETNETK	(SEQ ID NO: 32)	
OX2RH2_HU	YSTI-FAEGNISQPVLMDINAVLCCPPIALRNLIITWEIILRGQPSCTKAYKKETNETK	(SEQ ID NO: 33)	
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OX2RH1_MU	ETSCLGRNITWASTPDHSPELQISAVTLQHEGTYTCETVTPEGNFEKNYDLQVLVPPEVT	(SEQ ID NO: 34)	
OX2RH1_RT	ESNCSDRSITWASTPDLAPDLQISAVALQHEGRRYSCDIAPDGFNFQNIYDLQVLVPPEVT	(SEQ ID NO: 35)	
OX2RH2_MU	ET-CLGRNITWASTPDHIPDLQISAVALQHEGNYLCEITTPEGNFHKVYDLQVLVPPEVT	(SEQ ID NO: 36)	
OX2RH1_HU	ETNCTDERITWVSRPDQNSDLQIRTVAITHDGYYRCIMVTPDGFNFHGRYHQLVLTPEVT	(SEQ ID NO: 37)	
OX2RH2_HU	ETNCTVERITWVSRPDQNSDLQIRPVDTTHDGYYRIVVTPDGFNFHGRYHQLVLTPEVN	(SEQ ID NO: 38)	
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OX2RH1_MU	YFPEKNRSAVCEAMAGKPAQISWSPDG-DCVTTSESHSNGTVTVRSTCHWEQNNVSDVS	(SEQ ID NO: 39)	
OX2RH1_RT	HFPGENRTAVCEA1AGKPAQISWTPDG-DCVAKNESHNSNGTVTVRSTCHWEQSHVSVVF	(SEQ ID NO: 40)	
OX2RH2_MU	YFLGENRTAVCEAMAGKPAQISWTPDG-DCVTKSESHSNGTVTVRSTCHWEQNNVSAVS	(SEQ ID NO: 41)	
OX2RH1_HU	LFQNRNRTAVCKAVAGKPAAHISWIPEG-DCATKQYEWSNGTVTVKSTCHWEVHNVSTV	(SEQ ID NO: 42)	
OX2RH2_HU	LFQSRNITAVCKAVTGKPAQISWIPEGSILATKQYEWGNGTVTVKSTCPWEGH-KSTVT	(SEQ ID NO: 43)	
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OX2RH1_MU	CIVSHLT-GNQSLSIELSRRGGNQSLRPYIIPYIIPSIILIIIGCICLLKISGFRKCKLPK	(SEQ ID NO: 44)	
OX2RH1_RT	CVVSHLTTGNQSLSIELGRGGDQLLGSYIQYIIPSIILIIIGCICLLKISGCRKCKLPK	(SEQ ID NO: 45)	
OX2RH2_MU	CIVSHST-GNQSLSIELSRRGTTSTTPSLLTILYVMVLLGII---LLKV-G--FAFFQK	(SEQ ID NO: 46)	
OX2RH1_HU	CHVSHLT-GNKSLSLYIEL--LPVPG--AKKISKIIYSIYHPY--YYYLDHRG--IHLVVE	(SEQ ID NO: 47)	
OX2RH2_HU	CHVSHLT-GNKSLSVKLNGLRTSGSPALSLLIILYVKLSLF--VVILVTTG--FVFFQR	(SEQ ID NO: 48)	
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OX2RH1_MU	LEATSAIEEDEMQPYASYTEKSNPPLYDTVTKVEAFPVSQGEVNGTDCLTLAIGI	(SEQ ID NO: 49)	
OX2RH1_RT	SGATPDIEEDEMQPYASYTEKSNPPLYDTVTTTEAHPASQGKVNGTDCLTLSAMGI	(SEQ ID NO: 50)	
OX2RH2_MU	RNVTRT-----	(SEQ ID NO: 51)	
OX2RH1_HU	SQWLOKI-----	(SEQ ID NO: 52)	
OX2RH2_HU	INHVRKVL-----	(SEQ ID NO: 53)	

OX2R homolog polypeptide relationships (%)

		human H1	human H2	mouse H1	mouse H2	mouse H3
rat H1	Ig domain	54	52	72	73	32
	TM/cyt	?	0	84	0	0
mouse H3	Ig domain	33	29	39	46	
	TM/cyt	?	46	0	54	
mouse H2	Ig domain	60	51	82		
	TM/cyt	?	49	0		
mouse H1	Ig domain	53	47			
	TM/cyt	?	0			
human H2	Ig domain	79				

TM/cyt ?

? = sequence unavailable; "0" = no significant matching

Comparison of primate and rodent H2 with rodent H4 polypeptides; note similarity between the rodent H2 and H4:

pOX2RH2	1	MGKK-----QMTQN-YSTIFAEGNISQPVL	24	<u>(SEQ ID NO: 54)</u>
rOX2RH2	1		0	
rOX2RH4	1	MHALGRIPTLTLIFINIFVSGSSCTDENQTIQNDSSSLTQVNTTMSVQ	50	<u>(SEQ ID NO: 55)</u>
pOX2RH2	25	MDINAVLCCPPIALRNLIITWEIIIRGQPSCTKAYKKETNETKETNCTV	74	<u>(SEQ ID NO: 56)</u>
rOX2RH2	1	RGQPSCIMAYKvetKetNet-CLG	23	<u>(SEQ ID NO: 57)</u>
rOX2RH4	51	MDKKALLCCFSSPLINAVLITWIICKHRHLPSCIAYN-LDKKTNETSCLG	99	<u>(SEQ ID NO: 58)</u>
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pOX2RH2	75	ERITWVSRPDQNSDLQIRPVDTTHDGGYRGIVVTPDGNFHRRGYHLQLVLT	124	<u>(SEQ ID NO: 59)</u>
rOX2RH2	24	RNITWASTPDHIPDLQISAVALQHEGNYLCEITTPEGNFHKVYDLQLVLP	73	<u>(SEQ ID NO: 60)</u>
rOX2RH4	100	RNITWASTPDHSPELQISAVALQHEGTYTCEIVTPEGNLEKVYDLQLVLP	149	<u>(SEQ ID NO: 61)</u>
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pOX2RH2	125	PEVNLFQSRNITAVCKAVTGKAAQISWIPEGSILATKQEYWGNGTVTVK	174	<u>(SEQ ID NO: 62)</u>
rOX2RH2	74	PEVTYFLGENRTAVCEAMAGKAAQISWTPDG-DCVTKSESHSNGTVTVR	122	<u>(SEQ ID NO: 63)</u>
rOX2RH4	150	PEVTYFPGNRNTAVCEAMAGKAAQISWTPDG-DCVTKSESHSNGTVTVR	198	<u>(SEQ ID NO: 64)</u>
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pOX2RH2	175	STCPWEG-HKSTVTCHVSHLTGNKSLSVKLNGLRTSGSPALSLLIILYV	223	<u>(SEQ ID NO: 65)</u>
rOX2RH2	123	STCHWEQNNNSAVSCIVSHSTGNQSLSIELSRGGTTST-TP--SLLTILYV	169	<u>(SEQ ID NO: 66)</u>
rOX2RH4	199	STCHWEQNNNSVSVSCLVSHSTGNQSLSIELSQGTMFTT--PR-SLLTILYV	245	<u>(SEQ ID NO: 67)</u>
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pOX2RH2	224	KLSLFVVILVTTGFVFFQRINHVRKVL	250	<u>(SEQ ID NO: 68)</u>
rOX2RH2	170	KMVLGIILLKVGFAFFQKRNVRTT	194	<u>(SEQ ID NO: 69)</u>
rOX2RH4	246	KMALLVIILLNVGFAFFQKRNFART	270	<u>(SEQ ID NO: 70)</u>
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